

ture to determine how far the circumstances in which the company were placed could be considered as an excuse for their violation of the laws which assure and protect the rights of persons and property in this Province. Had the dam been built at the mouth of the river, it would have tended to render the country more healthy: as it is, the lands below Dunnville will long continue to stand in the way of the comforts of the inhabitants. Much of this level piece of water," observed Mr. Geddes, "is bordered by a sedgy shore, where rotten vegetables are acted upon by the fluctuations of the lake and the beams of a hot sun; and from this decaying mass rises a vapour that makes the lower part of the Grand River valley unhealthy. Covering this amphibious description of shore with a body of water that will remain permanently upon it, will doubtless act with great effect in improving the health of this sickly region of country, and will be hailed with joy by those living at the naval depot."

THE FEEDER OR BOAT CANAL.

From the Grand River dam to Broad Creek, a distance of five miles, the feeder is 26 feet wide at top, 10 feet at bottom, and from 4 to 5 feet deep. When filled it will overflow a considerable portion of the surrounding lands, unless an embankment is thrown upon the beam or west side, and the surplus waters conveyed through, below the canal, by means of a culvert into the river Ouse.

I was informed that the country here is sickly; but that after passing Broad Creek into the Tamarisk marsh it becomes healthy and free of fever. In this section the water used, is tinged with the bark and leaves of the Tamarisk, to which the workmen ascribe their healthful state.

From Broad Creek to the main curve, the point where it is supposed that the feeder will intersect the Ship canal, the excavation is 20 feet wide at the bottom, 36 feet at the surface, and upwards, of 4 feet deep. This section is 11 miles and fifty chains in length and perfectly straight. It forms one of the most magnificent avenues in the world.

On this line at the village of Marshville, there are two miles of cutting upon the old route, of the width of a ship canal; which have been abandoned. It is said to terminate in an excellent mill site, but I did not examine it. It will go over some time during the summer, and see whether or not it can be employed in any way, so as to defray in some degree the heavy expense of its excavation. Marshville is but four miles distant from Lake Erie; it is the centre of the Company's 13,000 acres of land.

From main curve down to the aqueduct, where the waters of the canal pass over the Welland river, the distance is 3 miles 30 chains, and the feeder is constructed with 20 feet bottom, a slope of 2 to 1, and is from 5 to 6 feet deep. Wherever there was low cutting it is the full width of the ship canal; and the alledged object in making it deeper near the deep cut is thereby to draw a more plentiful supply out of the Grand River.

From the aqueduct to the village of Beverly, at the commencement of the deep cut, a distance of 3 miles, the same general dimensions are continued.

The plan of the Feeder is 4 feet water in the canal at the dam; thence to Marshville a gradual descent of 6 inches; thence to Helme's Creek, other 6 inches; thence to Carlo's ravine 6 inches; and thence to the deep cut 6 inches; in all a descent of 2 feet, natural reservoirs being provided at each 6 inches of descent.

The carpenter work of the bridge over the feeder at or near the dam is well done, but the abutment wants repairs; from thence to Broad Creek, there are two waste weirs and tow-path bridges over them, the carpenter work of which is sufficient; also at Broad Creek a sluice, the carpenter work of which is not good; the gates are insufficient, and some puddling is required. The bridge and waste wear at Helme's are in good order.

THE AQUEDUCT ACROSS THE WELLAND.

This is an excellent piece of workmanship, and a monument of the superior skill and ability of Mr. Marshall Lewis, the builder and contractor.

THE WORKS AT OR NEAR CHIPPEWA.

The Swing Bridge across the Welland at Chippewa village is a substantial piece of workmanship, and admits the passage of ships or steam-boats of 40 feet beam. That part of the original bridge which has not been repaired by the company, is in a decayed state.

The towing path on the banks of the Welland is incomplete, as is that from thence to Fort Erie.

The canal or cut across the point at the junction of the Niagara and Welland rivers, has been completed, with the exception of some dredging at each end. This work is extremely well done, and adds to the safety and convenience of the navigation greatly. The depth of water in the cut is 8 feet.